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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/460,913
Filing Date: December 14, 1999
Appellant(s): COMERFORD ET AL.

Wayne L. Ellenbogen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on April 26, 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The applicant that there are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-5,9 and10; 6, 7, 13 and 19; 11, 12, 14 and 15 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,752,232	BASORE et al.	05-1998
2002/0091513 A1	MOZER et al.	12-1996
5,481,616	FREADMAN	07-1998
6,144,938	SURACE et al.	11-2000
6,044,347	ABELLA et al.	03-2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, 9 and 10 were rejected under 35 U.S.C. 102 (b) as being anticipated by Basore et al. (US 5,752,232). This rejection is set forth in the prior Office Action, mailed on January 26, 2004. As per claim 1, the argument in the Appeal Brief pages 8-10, deemed to be persuasive. Therefore, rejections to claims 1-5, 9-12 are hereby withdrawn, and only claims 6-8 and 13-19 remains rejected for the purposes of this Appeal, for reasons given next.

Claims 6, 7, 13, and 19 are rejected under 35 U.S.C. 102 (e) as being anticipated by Mozer et al. (US 2002/0091513 A1). The rejection are set forth in the prior Office Action (Paper No. 25) and are reproduce below for convenience.

Claims 14 and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Basore (US 5,752,232) and Mozer (US 2002/0091513 A1) as applied to claim 13

Art Unit: 2654

above, and further in view of Surace et al. (US 6,144,938). The rejection are set forth in the prior Office Action (Paper No. 25) and are reproduce below for convenience.

Claims 8, 16 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Mozer et al. (US 2002/0091513 A1) as applied to claim 6 above, and further in view of Freadman (US 5,481,616). The rejection are set forth in the prior Office Action (Paper No. 25) and are reproduce below for convenience.

Claim 18 is rejected under 35 U.S.C. 103 (a) being unpatentable over Mozer et al. (US 2002/0091513) and Freadman as applied to claim 16 above, and further in view of Abella et al. (US 6,044,347). This rejection is set forth in a prior Office Action, mailed on January 26, 2004. The rejection are set forth in the prior Office Action (Paper No. 25) and are reproduce below for convenience.

Claims 6, 7, 13, and 19 are rejected under 35 U.S.C. 102 (e) as being anticipated by Mozer et al. (US 2002/0091513 A1).

As per claim 6 and 19, Mozer teaches, "a method of automatically providing a spoken language interface for a user with respect to at least one external network with which the user interacts, wherein the user process a portable spoken language interface device having a data structure for storing one or more user interface data sets used to provide one or more spoken language interfaces," the method comprising the steps of:

"the device requesting a spoken language interface data set from the external network upon discovery of the external network" (Page 3, Paragraph 0032, reads on "at step 202, pattern recognition programming system 112 accesses external medium to

Art Unit: 2654

verify it in fact contains recognition set data and weight set data of kind employed by pattern recognition system . . . at step 204, pattern recognition programming system 212 retrieves an initial set of words and associated weight set into weight memory 110");

"the external network transferring the spoken language interface data set to the device; and loading the spoken language interface data set into the data structure of the device for use by the user interfacing with the external network" (Page 3, paragraph 0032 and 0033, reads on "at step 202, pattern recognition programming system 112 accesses external medium to verify it in fact contains recognition set data and weight set data of kind employed by pattern recognition system . . . at step 204, pattern recognition programming system 212 retrieves an initial set of words and associated weight set into weight memory 110 . . . the new recognition set and weight sets are transferred from external medium to the weight memory through external interface").

As per claim 7, Mozer teaches, "wherein the device is in wireless communications with the external network" (Fig. 1, wireless connection between element 118 (external Interface) and 104 (external medium)).

As per claim 13, Mozer teaches, "the device prompting the user for information comprising a spoken utterance, the device manager being responsive to spoken utterance for operatively modifying at least one of the predetermined parameter of the device and an application running on the device" (Page 3, paragraph 0029, reads on "the information presented to the user may include prompts for input to microphone or application specific information" and Paragraph 0033 reads on "pattern recognition

programming system receives the recognition results and selects a new set of words and associated weight set based on this results". Here, "a new set of words and associated weight set" is "one of the predetermined parameter").

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basore (US 5,752,232) and Mozer (US 2002/0091513 A1) as applied to claim 13 above, and further in view of Surace et al. (US 6,144,938).

As per claims 14 and 15, Basore and Mozer do not explicitly teach, "prompting the user for information includes the steps of storing one or more user experience parameters corresponding to a familiarity of the user with a predetermined procedure of the application; and selecting a prompt from a set of prompts for presentation to the user, the set of prompts including varying amounts of instruction based at least in part on experience parameters, the selected prompt substantially matching the stored experience parameters of the user"; and

"prompting the user for information includes the steps of: storing an internal data set including at least one of a date, a time and a number of times which a predetermined procedure of an application is performed; and selecting a prompt from a set of prompts for presentation to the user, the set of prompts including varying amounts of instruction based at least in part on information included in the internal data set, the selected prompt substantially matching the stored internal data set".

However, Surace teaches, "prompting the user for information includes the steps of storing one or more user experience parameters corresponding to a familiarity

Art Unit: 2654

of the user with a predetermined procedure of the application; and selecting a prompt from a set of prompts for presentation to the user, the set of prompts including varying amounts of instruction based at least in part on experience parameters, the selected prompt substantially matching the stored experience parameters of the user" (col. 14, lines 52-57); and

"prompting the user for information includes the steps of: storing an internal data set including at least one of a date, a time and a number of times which a predetermined procedure of an application is performed; and selecting a prompt from a set of prompts for presentation to the user, the set of prompts including varying amounts of instruction based at least in part on information included in the internal data set, the selected prompt substantially matching the stored internal data set" (col. 13, line 47 to col. 14, line 40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Surace's teaching in the invention of Basore or Mozer because Surace teaches his invention provides a cost-effective and high performance computer-implemented voice user interface with personality that can be used for various applications in which a voice user interface is desired (col. 1, lines 51-55).

Claims 8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozer et al. (US 2002/0091513 A1) as applied to claim 6 above, and further in view of Freadman (US 5,481,616).

Art Unit: 2654

As per claims 8 and 16, Mozer teaches, all the limitations as stated above in claim 6, however, Mozer fails to teach, "a personal data assistant operatively coupled to spoken language interface device, PDA including at least one application associate therewith". However, Mozer teaches, at Page 2, paragraph 0023, "apparatus may provide speech recognition capabilities to for example various electronic appliances such as a compact disk changer, telephone, computer, television watch, etc. components of apparatus may perform other functions besides speech recognition in the context of such appliances. However, Freadman teaches an apparatus providing a microphone, speech input and output, and a speech interface to another device, including telephone capability (col. 2, lines 5-21) Freadman also teaches the device providing with speech interface as the device is a personal digital assistant (at col. 3, lines 31-40, as a hand-held computer, known as a personal digital assistant, receives the card operative to equip the computer with the sound capability). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include Mozer's concept of speech recognition and a digital signal processor interfacing speech input in a consumer electronic products because that would have coordinated control of voice input, commanding, and audio output to Freadman's personal digital assistant.

As per claim 17, Mozer teaches, "wherein the portable spoken language interface device is a wireless communication with the external network" (Fig. 1, wireless connection between element 118 (external Interface) and 104 (external medium)).

Art Unit: 2654

Claim 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mozer et al. (US 2002/0091513) and Freadman as applied to 16 above, and further in view of Abella et al. (US 6,044,347).

As per claim 18, Mozer and Freadman teach all the limitation stated above in claim 16.

However as per claims 18, Mozer and Freadman fails to teach,

“in apparatus for providing a portable spoken language interface for a user to a device in communication with the apparatus, the device having at least one application associated therewith, the spoken language interface apparatus comprising:”

“an audio input system for receiving speech data provided by the user”;

“an audio output system for outputting speech data to the user”;

“a speech recognition engine for generating an output in response to spoken utterances”;

“a speech synthesizing engine for generating a synthesized speech output in response to text data”;

“a dialog manager operatively coupled to the device, the audio input system, the audio output system, the speech recognition engine and the speech synthesizing engine”; and

“at least one user interface data set operatively coupled to the dialog manager, the user interface data set representing spoken language interface elements and data recognizable by the application of the device”; wherein:

(i) "the dialog manager enables connection between the input audio system and the speech recognition engine such that the spoken utterance provided by the user is provided from the input audio system to the speech recognition engine"; "(ii) the output generated by the speech recognition engine is returned to the dialog manager"; "(iii) the dialog manager uses the output generated by the speech recognition engine to search the user interface data set for a corresponding spoken language interface element and data which is returned to the dialog manager when found"; "(iv) the dialog manager provides the spoken language interface element associated data to the application of the device for processing in accordance therewith"; "(v) the application of the device, on processing that element, provides a reference to an interface element to be spoken"; "(vi) the dialog manager enables connection between the audio output system and the speech synthesizing engine such that the speech synthesizing engine which, accepting data from that element, generates a synthesized output that expresses that element"; and "(vii) the audio output system audibly presenting the synthesized output to the user".

However, Abella teaches, above limitations:

"in apparatus for providing a portable spoken language interface for a user to a device in communication with the apparatus, the device having at least one application associated therewith, the spoken language interface apparatus comprising:"

"an audio input system for receiving speech data provided by the user" (col. 4, lines 43-44, reads "the system receives a speech signal in the form of utterances from a user via a microphone");

“an audio output system for outputting speech data to the user” (col. 4, lines 51-53, reads “generates an output speech signal by supplying appropriate drive signals to a speech synthesizer);

“a speech recognition engine for generating an output in response to spoken utterances” (col. 4, lines 45-57, a speech recognition units);

“a speech synthesizing engine for generating a synthesized speech output in response to text data” (col. 4, lines 45-57, speech synthesizer and col. 5, lines 1-15, here text can be inputted and text can be outputted and inherently by the synthesizer speech can be outputted);

“a dialog manager operatively coupled to the device, the audio input system, the audio output system, the speech recognition engine and the speech synthesizing engine” (col. 7, line 51, dialog manager); and

“at least one user interface data set operatively coupled to the dialog manager, the user interface data set representing spoken language interface elements and data recognizable by the application of the device” (col. 44-56, application is the interface data set and reads on “dialog manager is configured to recognize the user request”) ; wherein:

(i)“the dialog manager enables connection between the input audio system and the speech recognition engine such that the spoken utterance provided by the user is provided from the input audio system to the speech recognition engine” (Fig. 2, elements 30 and 34); “(ii) the output generated by the speech recognition engine is returned to the dialog manager” (Fig. 2, element 40); “(iii) the dialog manager uses the

Art Unit: 2654

output generated by the speech recognition engine to search the user interface data set for a corresponding spoken language interface element and data which is returned to the dialog manager when found" (Fig. 2, element 42); "(iv) the dialog manager provides the spoken language interface element associated data to the application of the device for processing in accordance therewith" (Fig. 2, element 42); "(v) the application of the device, on processing that element, provides a reference to an interface element to be spoken" (Fig. 2, element 42); "(vi) the dialog manager enables connection between the audio output system and the speech synthesizing engine such that the speech synthesizing engine which, accepting data from that element, generates a synthesized output that expresses that element" (Fig. 2, element 32 and Fig. 1, element 20); and "(vii) the audio output system audibly presenting the synthesized output to the user" (Fig. 2, element 32 and Fig. 1, element 20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a device including a dialogue manager as taught by Abella, in the invention of Mozer because Abella teaches his invention provides an object-oriented dialogue manager which allows a computer system or other dialogue processing system to conduct an efficient dialog with a human user (col. 2, lines 32-35).

(11) Response to Argument

a. As per claim 1, the appellants argue in page 8-10 of the Brief: "Basore also fails to teach or suggest "at least one user interface data set . . . representing spoken language interface elements and data recognizable by the application of the device," as set forth in the claim 1". Applicant also argues: "Basore further fails to disclose the step of adding a new application to the device and generation a second user interface data set corresponding to the new application, as required by claim 1". The applicant further stated that the term "applications" as is conventionally understood, refers to one or more software programs or processes residing on the device, each program or process exciting distinct code. While, Basore defines "application" to denote different uses of the device (Brief, Pages 8-10).

The appellants above argument is deemed to be persuasive because even though Basore teaches "application" it does not have the same meaning the applicant uses in the claim. While Basore disclose downloading a new vocabulary including phonetic spelling, it is for recognizing a new subset of words relating to a specific use of the device. So claims 1-5 and 9-12 are allowed over the prior art of record.

b. As per claim 6 and 19 the Appellants stated: "recognition set and weight set taught by Mozer, on page 3, paragraph 0032, are not analogous to the

spoken language interface data set recited in the claimed invention and defined by the present specification. The recognition set disclosed in Mozer is merely a set of words recognized by the dedicated interface associated with the speech recognition system. While Mozer may disclose that the recognition system can select a new set of words and associated weights for recognizing a new user utterance (Mozer; page 3, paragraph 003), Mozer fails to teach or suggest automatically providing a new spoken language interface for the user, as set forth in the claims 6 and 19. Moreover, Mozer fails to teach or suggest dynamically changing an application of the speech recognition system. Rather, Mozer discloses a system that is dedicated to a single application (e.g., a compact disc changer application).

The examiner disagrees to the Appellants assertion that Mozer fails to teach automatically providing a new spoken language interface for the user because Mozer teaches the recognition system can select a new set of words and associated weights for recognizing a new user utterance (Mozer; page 3, paragraph 003) as acknowledges by the applicant, which is nothing but the new spoken language interface. Applicant also defines a spoken language interface as vocabulary files. By definition vocabulary file is a set of words.

In response to applicant's argument that the references fail to show certain features of applicant's invention (i.e., dynamically changing an application of the speech recognition system), it is noted that other features upon which

applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

c. As per claim 13 the applicant argues: "providing prompts for a specific application is well-known in the art. However, this is not an accurate characterization of the invention set forth in claim 13. Specifically, Mozer fails to teach or suggest that the system is capable of modifying one or more parameters of the system and/or an application running on the system in response to the user utterance, as expressly required by claim 13. While Mozer may disclose that "pattern recognition system 112 receives the recognition result and selects a new set of words and associated weight set based on this result" (Mozer; page 3, paragraph 0033), Applicants assert that merely selecting a new set of words to be recognized does not amount to modifying one or more operating parameters of the system".

The examiner disagrees with the applicant's assertion because Mozer teaches "pattern recognition system 112 receives the recognition result and selects a new set of words and associated weight set based on this result" (Mozer; page 3, paragraph 0033), here set of words is parameter, which is changed. The applicant claimed, "modifying at least one of a predetermined parameter of the device and an application running on the device". The language

Art Unit: 2654

"at least" used in the claim allows modifying such a predetermined parameter of the device to read on the claim.

d. As per claim 14, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, suggestion or motivation is found in the reference of Surace at col. 1, lines 51-55.

In response to applicant's argument that Surace is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is reasonably pertinent to the particular problem with which the applicant was concerned, because Surach solve a particular problem includes selecting a prompt based on various context situations, such as a previously selected prompt and the user's experience with

Art Unit: 2654

using the voice user interface, as shown at col. 14, lines 52-57; and col. 13, line 47 to col. 14, line 40. Surace solved this particular problem in the same way as applicant claimed. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Surace teaching in the invention of Mozer to solve that particular problem to come up with applicant's invention.

e. As per claim 16, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion motivation is the knowledge generally available to one of ordinary skill in the art, because it would have been obvious to one of ordinary skill in the art at the time of the invention to include Mozer's concept of speech recognition and a digital signal processor interfacing speech input in a consumer electronic products because that would have coordinated control of voice input, commanding, and audio output to Freadman's personal digital assistant.

In response to applicant's argument that Mozer and Freadman are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is reasonably pertinent to the particular problem with which the applicant was concerned, because Freadman solve particular problem of an apparatus providing a microphone, speech input and output, and a speech interface to another device, including telephone capability (col. 2, lines 5-21) and where the device is a personal digital assistant (at col. 3, lines 31-40, as a hand-held computer, known as a personal digital assistant, receives the card operative to equip the computer with the sound capability). Therefor, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace Freadman's hand-held computer with speech capability with Mozer's portable electronics device to solve that particular problem to come up with applicant's invention.

f. As per claim 16, the applicant further stated: "Appellants submit that, even assuming, *arguendo*, that the Mozer and Freadman references can be combined, the combination of Mozer and Freadman fails to disclose all of the limitations set forth in claim 16. For example, Mozer fails to teach or suggest a portable spoken language interface device that is operative to request a spoken language

interface data set from an external network upon discovery of the external network, as required by claim 16".

The examiner disagrees with the appellants' assertion because Mozer teaches limitations at Page 3, paragraph 0030, here "new recognition set" is "spoken language interface". Mozer also shows in Fig. 1, an "external Medium" 104, "portable spoken language interface device" as elements 105 and 102, network are connected to the external medium, here recognition words set are loaded from the external medium according to the request of the of the recognition words set through the network, up on discovering the network.

g. As per claim 18, Appellants stated: "appellants respectfully disagree with the Examiner's contention that Abella supplement the deficiencies of Mozer and Freadman. Abella, for example, fails to teach, or suggest a dialog manager having the functionality as defined by the present specification".

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Here, how "a dialog manager" as claimed is distinguishes from the Abella's "dialog manager is not discussed.

In view of above response, the examiner has met his burden with regards to the first criterion in order to establish a case of *prima facie* obviousness.

Art Unit: 2654

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Abul K. Azad
July 23, 2004

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